

## PROPER TREATMENT OF ENGINE BEARING HIGHLY IMPORTANT

First 500 Miles With New Car Is the Period of Close Scrutiny to Prolong Motor. Efficient Service.

COME FROM FACTORY FITTED VERY TIGHT "Pounding" Soon Beats Babbit Down to Proper Thickness—Crank Case Should Be Drained.

Did you ever study the problems involved in the bringing up of little turkeys? I don't know much about it myself, confesses Ernest Coler in a recent issue of Motor Life, but every time I see a chap tearing along in a brand new car I am reminded of old Uncle Ezra, who, in Dubuque, Iowa, who, between mouthfuls of tobacco juice, delivered himself thus: "Them there turkey birds? They gets their feet wet afore they're ten days old, good night! After that you got to kill them with an ax, by gum."

Whatever philosophy can be extracted from this piece of bucolic wisdom may be applied to the treatment of your new car. The ponderous locomotive traveling on ideally smooth rails and the automobile you drive over the boulevards of our large cities and over "Uncle Sam's crooked country roads" are different machines, but the former is attended by a carefully trained and efficiency-proved engineer, while the motorist's chief qualifications for the job of an automotive engineer generally are those of a successful soap manufacturer.

Whatever one's notions of the new car's monetary value may be, it is well to hear in mind that mechanically a car is no better than its bearings. With the exception of lubrication, the most important factor involved in the satisfactory operation of an automobile are the bearings. And it is in a new car that they are apt to refuse to be imposed upon before they are properly introduced to their arduous duties.

**Fitted Closely.** At the factory engine bearings are fitted very carefully. The job itself is not one to be undertaken by a novice. It is painstaking work even for an expert to obtain proper bearing surfaces. But a perfect bearing surface is not a hand-made job, but the result of a gradual wearing-in process going on during the engine's operation.

In spite of the fact that bearings as well as shafts are finished with the mechanical precision of exceptional accuracy, the final fitting of the bearings in the better cars is still done by hand, by the "spotting-in" process in which a good deal of the success depends on the dexterity of the operator and the care with which he proceeds.

The babbitt metal with which plain engine bearings are lined is compressible to a certain extent, so that after the bearing surfaces have been hammered by many thousands of explosions they take a certain "set" with the result that they become measurably smaller. This being the case, the factory very sensibly adjusts the bearings as close as possible, well knowing that the first few hundred miles of road travel will open them to the proper fit.

What the motorist should keep before him in the first few days of his companionship with the new car is that within the initial five hundred miles the bearings may run hot; this applies with particular force to the main engine bearings which in case of damage can not be reached except by the expensive process of partially dismantling the motor.

Aide from the "set" a babbitt-lined bearing gradually assumes a degree of smoothness that comes only from actual service contact of the bearing and the shaft turning in it. Before this time the bearings retain a certain roughness which even the most careful scraping, spotting and fitting can not eliminate. Even the most generous lubrication is often unable to reduce the friction thus set up to a point not involving temporary danger.

If you happen to be one of those who change their cars from season to season, just as you would change your spats, passing the cut-off beauty to a less affluent motorist, you probably won't worry much about the manufacturer's advice to give your automobile a chance to wait before compelling it to produce genuine speed—that is, unless you burn your bearings out some seventeen miles from anywhere and have to be towed behind a mule, who in turn, is bossed by a more or less chocolate-hued gentleman whose time suddenly becomes worth a lot of money.

If you are of that ilk, the worrying probably will be done by the second-hand car dealer and ultimately by the chap who falls heir to your procrastination. But if you are a member of that larger, larger motoring family which is the mainstay and meal ticket of our American automobile industry, lack of which the most ingeniously designed and built mechanism can not live out its allotted time, then you will not succumb to the temptation to make your butchery look "like a bum," just because he tries to pass you on the way to the roadhouse where "Mum" is the word.

**Drain Frequently.** It is an excellent plan not only to drain the crankcase of all oil after the first 500 miles, but to wash the entire lubricating system with kerosene. The desirability of this step becomes evident when it is considered that in a brand new engine small particles of metal are shaken off which fall into the oil base and are carried into the bearing surfaces.

Together with the lubricant, to guard against this danger, the drained engine base should be filled with a good quality of kerosene. After that the engine should be turned over a half dozen times by means of the electric starter, the ignition switch, of course, being "off," so as to prevent the starting of the motor. In this fashion the kerosene is distributed all through the lubricating system and whatever minute metal particles are encountered are left to the bottom of the crankcase, from which they emerge when the latter is drained.

After the engine base has been filled with new lubricant the electric starter should again be made to turn the motor over a half dozen times for the purpose of distributing the new oil over the various bearing surfaces.

Whenever you are inclined to grumble at the occasional necessity for handling your engine's power resources, remember that one single railroad engine, huge and powerful as it is, will pull you all the way from New York to Chicago; the job is attended to by poundhouses every few hundred miles to be groomed, adjusted and repaired. Your automobile engine, on the other hand, stays with you from the journey's beginning to the end, whether the road is rough or smooth, or whether you are out into the suburbs or across the American continent. That's why.

**LINCOLN'S FARM.** A stone's throw from the Lincoln Highway, and just a few miles out of Denison, lies the only place of ground Abraham Lincoln ever owned, according to The Lincoln Highway Forum. It is a rough and hilly, good only for stock feeding. It is hard to find and he who seeks it must wander around in the hills out of Denison before he locates it.

The farm was deeded to Lincoln for his services in the Blackhawk war, and though he never lived on it, there is reason to believe that he was planning, when public life was over, to return to this Iowa farm and spend the remainder of his days there near the great road which now bears his name, a most appropriate memorial to the martyred patriot.—Motor Life.

## CITY RENTS "JUICE" TO AUTO OWNERS

Although this is not the time of year to talk about keeping the radiator warm, yet it is not too early to mention a very clever idea adopted by the electric light company of London, Ontario, Canada. Perhaps the plan could be worked out by many of our own cities, and now is the time to bring it to their attention, rather than later on when the service is needed.

Current taps have been installed on electric light poles at convenient points throughout the Canadian city, by means of which the radiators of automobiles are kept warm, while standing outdoors in cold weather. Anyone wishing to take advantage of the electric current for heating the radiator while his car is left standing pays an annual fee to the electric light company and receives a key that enables him to use the current taps. The customer also receives a license number which is tied to the connecting cord of his electric heater, so that the inspector of the electric light company can see whether or not authorized parties are using the plugs. The consumer must provide his own electric radiator heater. The idea is one which has great possibilities, especially in the localities which get very cold in winter.—Motor Life.

## PAINTING THE TIRES.

Painting the tires with a coating of liquid rubber to which whitening has been added, not only gives the shoes an attractive appearance, but it also helps to preserve them, especially in the hot summer time. There are a number of tire-painting compounds on the market, and they are intended to fill in small cuts and scratches as well as to add to the appearance of the shoes. In sealing over cuts and bruises the preparations further tend to keep moisture from working itself into the fabric.

For the benefit of the motorist who likes to do his own tinkering insofar as possible, it might be added that a satisfactory compound for coating both the inside and the outside of the shoes can be made by stirring five pounds of whitening into a quart of gasoline, and after a thorough mixing has been effected, adding a quart of rubber cement. The cold patch cement sold by nearly every tire company will do. This latter is the rubber part of the mixture. Once thoroughly mixed, the compound is applied with a brush like any other paint, and due to the elasticity imparted by the rubber cement, the paint will not crack after it is applied to the shoe.—Motor Life.

A steamer recently sailed from San Francisco bound for Honolulu with 114 automobiles and trucks aboard consigned to individuals in the Hawaiian island group. This is a record shipment of motor vehicles to that place.—Goodrich.

## IF YOUR LIGHTS DON'T FOCUS, HERE'S REMEDY

Fortunately, a rough-and-ready and fairly reliable method of focusing is available to anybody who doesn't shy at a little bother, says Ernest Coler in Motor Life Magazine. Stand the car on level ground, 30 feet from a vertical surface, such as the side of a building, a fence or the garage door. Mark two crosses on this surface. The horizontal lines of the crosses should be 4 inches from the ground while the distance between the vertical lines should be equal to the distance between the lamps of your car. Remove the covers or lenses of the lamp, train the light on the two marks and focus the lamps by changing the location of the bulbs until you obtain the smallest circle of clear light centered on the crosses. As long as the light circle on the wall shows a black spot in the center your bulb is too far back in the reflector; as long as that circle remains fuzzy, streaked or without sharply defined edges, proper focus has not been obtained. The crosses incidentally enable you to check up the alignment of your lamps. Frequently they are tilted upward or downward, or sideways. After focusing the non-glare or plain lenses may be replaced and your lamps are as efficient as they can be with the equipment you carry. But, as long as you are anxious to have properly focused lamps the focus-

ing has to be done again when you change or renew lamp bulbs.

While it grieves me to inject this discordant note, candor nevertheless compels the statement that some motorists will find it practically impossible to obtain a clear white spot of light when focusing their lamps. In these cases the fault lies with the reflector, which may have been turned out by a manufacturer who, in all likelihood, would not recognize a paraboloid if it were presented to him by a process server. Every thing that glitters with a nice, shiny coat of nickel plating is not necessarily a parabolic lamp reflector.

When your lamps happen to be saddled with reflectors of this description all you can do is to focus your lamps until you obtain the nearest approach to a clear, white circle of light.

## PITCH OF ROAD CAUSES UNUSUAL TIRE WEAR

The fact that tires on the right-hand side of a car wear out faster in proportion than those on the left-hand

side, often puzzles motorists. The popular supposition, that this wear is caused by turning many corners to the right, is incorrect. The fact is that the increased wear is actually caused by the pitch of the road, which throws more of the car on the right side than on the left.

The round of the road from curb is far more important in determining the sequence in which tires normally wear out—right rear, left rear, right front, left front—than is gutter wear and abrasions from grinding off and on pavements.

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In this simple fact alone—that so many thousands of women depend upon it implicitly—is perhaps the strongest evidence that can be adduced that the Cadillac is the truly great car it is considered the world over.

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